

24. (New) A vehicle headlamp system for providing illumination, comprising:
an incandescent lamp that includes:

a sealed lamp envelope,

first and second lead wires extending into said envelope, and

a filament attached to said first and second lead wires inside said envelope,

a reflector partially surrounding said envelope, and

a front lens, with said incandescent lamp being located between said lens and reflector such that a portion of the light emitted from said lamp is redirected by said reflector to exit said headlamp system through said lens,

wherein at least one of said lead wires has a flattened portion that runs alongside said filament and a non-flattened portion located below said filament, said flattened portion having a narrow profile and a wide profile with said non-flattened portion having a width greater than said narrow profile but less than said wide profile, and

wherein said flattened portion is oriented such that said narrow profile is aligned with the direction of illumination of light emitted by said filament.

25. (New) The vehicle headlamp system of claim 24, wherein said incandescent lamp is a halogen lamp.

REMARKS

This Amendment is being filed in response to the Office Action mailed January 30, 2003, (hereafter referred to as the 'First Office Action'). During a telephone call from the Examiner on January 20, 2003, Applicant provisionally elected claims 1-10 for prosecution, and Applicant hereby affirms that election. Claims 11-19 have therefore been withdrawn from consideration by the Examiner and Applicant is hereby canceling these claims without disclaimer of the subject matter therein and without prejudice to Applicant's right to later submit one or more claims covering the subject matter thereof. Claims 1, 4, 8, and 9 are being amended and claims 20-25 are being added. Accordingly, claims 1-10 and 20-25 remain pending in the application.

§ 102 REJECTION OF CLAIMS 1-3 and 6-8

In the First Office Action, claims 1-3 and 6-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Wolfe et al. (U.S. 3,904,908). The rejection of these claims is respectfully traversed and Applicant requests that this rejection be reconsidered in light of the amendments and for the reasons discussed in the following paragraphs.

The Wolfe patent is directed to an incandescent lamp construction which includes filament support leads made from a sheet metal construction by, for example, punching or etching from a sheet blank. The sheet metal mount from which the support leads are made is shown in Fig. 1. The mount supports the filaments which are attached along with a reflector shield adjacent one of the filaments prior to assembly of the components into the envelope. Each of the support lead branches of the sheet metal mount are interconnected to each other via transverse bracing portions. Once sealed within the lamp envelope, these transverse bracing portions are severed by laser cutting to electrically isolate the support leads from each other.

Although the support leads have a narrow profile aligned with the direction of light emitted from the filaments, they are not flattened portions of an otherwise standard lead wire. This is of some significance since the manufacturing method of Wolfe et al. departs substantially from standard incandescent lamp manufacturing methods utilized today, whereas Applicant's can utilize standard manufacturing techniques and equipment modified only by the flattening of the lead wires and aligning of the narrow profile with the filament. That is, Wolfe et al.'s use of a punched or etched metal blank and laser cutting through a sealed lamp envelope is not commonly used in commercial industry to make automotive or other incandescent lamps. Rather, the use of individual lead wires having a standard circular cross-section are used, and Applicant's invention permits the continued use of these widely available wires and associated manufacturing equipment to make incandescent lamps having a narrowed portion that provides sufficient mechanical support for the filaments while helping minimize undesirable reflections of light emitted by the filament.

To more distinctly claim this feature of Applicant's invention, claims 1, 8, and 9 have been amended to recite that the lead wire(s) have a generally circular cross-sectional shape with a flattened outer end. As will be appreciated, the Wolfe et al. patent does not disclose an incandescent lamp having a lead wire with a generally circular cross-sectional shape and a flattened outer end, and therefore fails to disclose each and every element of claims 1-3 and 6-8, as presently amended. Pursuant to numerous Federal Circuit decisions, in order for a prior art reference to anticipate a claimed invention, it must disclose each and every element of that claimed invention. It follows, then, that the Wolfe reference does not anticipate the invention, as recited in the amended claims.

The Wolfe reference fails to disclose a lead wire having any portion with a generally circular cross-sectional shape, as evidenced by the figures and the written description. Rather, all of the Wolfe et al. disclosure unequivocally shows that the filament support leads used by Wolfe et al. include several fingers or branches 17-19 that are made of flat segments of a single piece of sheet metal. "The filament 12, 13 and the shield 14 are supported on a sheet metal mount indicated generally by the reference 16. The mount 16 has three separate fingers, or branches 17, 18 and 19."¹ Moreover, Figure 2 of that reference clearly shows the fingers 17-19 as flat, cut-out sections of a single piece of sheet metal 16.

In this regard, it will also be appreciated from a full understanding of the teachings of Wolfe et al. that it does not render obvious the invention variously defined by Applicant's claims, whether considered singly or in combination with other prior art of record. In particular, it would not have been obvious from Wolfe et al. to flatten lead wires having an otherwise generally circular cross-section since forming filament support leads in that fashion would run counter to what Wolfe et al. teach. That is, Wolfe et al. teach away from flattening of otherwise rounded leads since the primary focus of their invention is on the use of a single sheet blank for forming the support leads and subsequent separation of interconnecting portions of the sheet blank. There is no express teaching in Wolfe et al. of the advantages noted by Applicant in aligning a narrow profile

¹ U.S. Patent No. 3,904,908, Column 2, lines 41-45.

of a lead wire with the direction of light from a lamp filament and so there is nothing from Wolfe et al. that would lead one using standard rounded lead wires to flatten a portion of those lead wires and align them with an adjacent filament to minimize the reflection of light off the wire.

Accordingly, Applicant respectfully asserts that claims 1 and 8 patentably define over Wolfe et al. Claims 2, 3, 6, and 7 each ultimately depend from claim 1 and should be allowed therewith.

§ 103 REJECTION OF CLAIMS 9 and 10

In the First Office Action, the Examiner also rejected independent claim 9 and dependent claim 10 under 35 U.S.C. § 103(a), as being unpatentable over Wolfe et al. in view of English et al. (U.S. 6,093,999). This rejection is also respectfully traversed for the reasons discussed below.

Neither the Wolfe et al. nor the English et al. reference teach or suggest combining their lead wires to arrive at a lead wire having both a generally circular cross-sectional segment and a flattened outer end, as recited in the amended claims. As stated by the Federal Circuit, "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so."² Although the Wolfe et al. patent discloses fingers 17, 18, and 19 that are flat along their length, that patent makes absolutely no suggestion that those components could be replaced by or combined with lead wires having generally circular cross-sectional segments. To the contrary, as discussed above, doing so would frustrate the expressed intent of Wolfe et al. to make the support leads from a flat sheet material. Likewise, the English et al. patent teaches the use of wires 30, 32 and 34, yet fails to provide any teaching, suggestion, or incentive for flattening an outer end of those lead wires and then aligning them with the direction of emitted light. Accordingly, it would not have been obvious to combine the Wolfe et al.

² *ASC-Hospital Systems, Inc. v. Montefiore Hospital*, 221 USPQ 929, 933 (Fed. Cir. 1984).

and English et al. patents to arrive at the claimed invention, as recited in amended claims 1, 8, and 9.

Therefore, Applicant asserts that amended claim 9 patentably defines over Wolfe et al., English et al., and the other prior art of record. Claim 10 depends from claim 9 and should be allowed therewith.

OBJECTION TO CLAIMS 4 and 5

In the First Office Action, the Examiner objected to claims 4 and 5 as being dependent upon a rejected base claim, but indicated that those claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has rewritten claim 4 in independent form such that it includes all of the limitations of base claim 1. Claim 5 depends from claim 4 and should be allowed therewith.

NEW CLAIMS 20-25

New claims 20-25 are being added. Independent claim 20 recites an incandescent lamp having first and second lead wires wherein at least one of the lead wires has both a flattened portion that runs alongside the filament and a non-flattened portion located below the filament. The flattened portion has a narrow profile and a wide profile with the non-flattened portion having a width greater than the narrow profile but less than the wide profile. This feature is not taught or suggested by either Wolfe et al. or the other prior art of record.

SPECIFICATION AMENDMENT

Applicant is hereby amending the specification to add a paragraph that corresponds to the additional claims and claim language included in this amendment. This subject matter of this added paragraph is fully supported by the originally filed drawings and specification. Thus, no new matter is being entered.

CONCLUSION

In view of the foregoing, the Applicant respectfully submits that all claims are now in a condition for allowance, and reconsideration is therefore requested. The Examiner is invited to telephone the undersigned if doing so would advance prosecution of this case.

The Commissioner is hereby authorized to charge the two-month extension of time fee, as well as any other required fee, or credit any overpayment associated with this communication to Deposit Account No. 06-0420.

Respectfully submitted,
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MARKED-UP COPY OF CLAIM AMENDMENTS

Pursuant to 37 C.F.R. § 1.121(c)(1)(ii), the following is a marked up copy of the claims being submitted in the accompanying AMENDMENT AND RESPONSE being filed herewith:

1. (Amended) An incandescent lamp, comprising:

a filament capable of emitting light,

a lead wire supporting said filament and [at least partially forming an electrical network] capable of supplying electrical current to said filament, said lead wire having a generally circular cross-sectional shape with a flattened outer end, and

an envelope surrounding said filament and at least a portion of said lead wire that includes said flattened outer end, wherein said flattened outer end includes a narrow profile and a wide profile and is oriented such that said narrow profile is aligned with the direction of illumination of light emitted by [the] said filament.

4. (Amended) [The incandescent lamp of claim 1,] An incandescent lamp, comprising:

a filament capable of emitting light,

a lead wire supporting said filament and at least partially forming an electrical network capable of supplying electrical current to said filament, said lead wire having a flattened outer end, and

an envelope surrounding said filament and at least a portion of said lead wire that includes said flattened outer end, wherein said flattened outer end includes a narrow profile and a wide profile and is oriented such that said narrow profile is aligned with the direction of illumination of light emitted by said filament,

wherein said wide profile of said flattened outer end has a surface including a non-reflective surface feature.

8. (Amended) An incandescent halogen lamp for use with a vehicle headlamp system, comprising:

a first filament capable of emitting light and having a first and second end,
a second filament capable of emitting light and having a third and fourth end,
a first lead wire supporting said first filament and [at least partially forming an electrical network] capable of supplying electric current to said first filament, said first lead wire having a generally circular cross-sectional shape with a flattened outer end connected to said first end,

a second lead wire supporting said second filament and [at least partially forming an electric network] capable of supplying electric current to said second filament, said second lead wire having a generally circular cross-sectional shape with a flattened outer end connected to said third end,

a ground wire [at least partially forming an electrical network] capable of supplying electric current to said first and second filaments and having an outer end connected to said second and fourth ends, and

a [sealed] lamp envelope containing a halogen gas wherein [and surrounding] said first and second filaments, said flattened outer ends of said first and second lead wires, and said outer end of said ground wire are all sealed within said envelope, and wherein said flattened outer ends each comprise a narrow profile and a wide profile and each of said flattened outer ends is oriented such that said narrow profiles are aligned with the direction of illumination of light emitted by the filament to which they are attached.

9. (Amended) A vehicle headlamp system for providing illumination, comprising:

an incandescent lamp that includes:

a filament capable of emitting light,

a lead wire electrically and mechanically connected to said filament to thereby support said filament and supply electric current to said filament, said lead wire having a generally circular cross-sectional shape with a flattened outer end, and

an envelope surrounding said filament and at least a portion of said lead wire that includes said flattened outer end,

wherein said flattened outer end includes a narrow profile and a wide profile and is oriented such that said narrow profile is aligned with the direction of illumination of light emitted by said filament,

a reflector partially surrounding said envelope, and

a front lens, with said incandescent lamp being located between said lens and reflector such that a portion of the light emitted from said lamp is redirected by said reflector to exit said headlamp system through said lens.